



# THE® WASHBALL



## Outline on product



### Detergent

- Petroleum-based compounds are their major elements
- Contain toxic heavy metals and carcinogens
- Hardly decompose, causing to pollute water
- Partially remain in the clothes after washing
- Causing skin and physical diseases like atopy

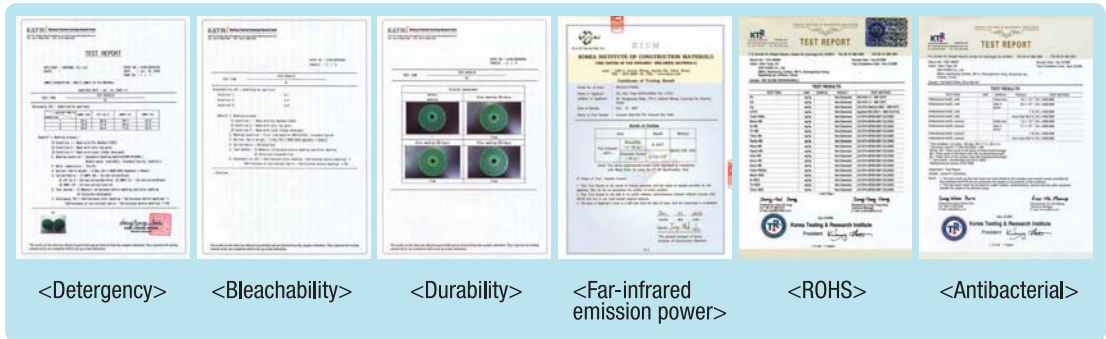


### 1THE WASHBALL


- Performs superb washing without synthetic detergent
- Cost-effective by saving detergent expenses
- Protects fabrics and maintains original color of clothes
- Protects skins and delivers anti-bacterial effects
- Helps protect environment and save energy



# Certificates



# Performance Testing

| Sample                         | Detergent     |               |  |               |
|--------------------------------|---------------|---------------|--|---------------|
|                                | After 1 Cycle | After 5 Cycle | After 1 Cycle  | After 5 Cycle |
| Miscellaneous Stains           |               |               |  |               |
| 1. Gallo® Burgundy Wine        | 1.5           | 2.0           | 2.0  | 2.5           |
| 2. Welch's® Bottle Grape Juice | 2.5           | 3.0           | 2.5  | 3.0           |
| 3. French's® Plain Mustard     | 1.5           | 3.0           | 1.0  | 1.0           |
| 4. Bottle Ketchup              | 4.0           | 5.0           | 4.0  | 4.0           |
| 5. Mayonnaise                  | 4.5           | 5.0           | 4.0  | 4.0           |
| 6. Salad Oil                   | 5.0           | 5.0           | 5.0  | 5.0           |

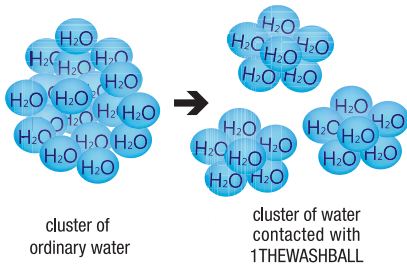
*Note : Ratings based on AATCC 130 Stain Release Replica  
Grade 5 represents the best stain removal and Grade 1 the poorest stain removal.*

# Washing principles



## I. Frictions of outer bumps and water pressure

Washing is done by the frictional force made between the protruding bumps on 1THEWASHBALL and clothes, and it is further enhanced by the water pressure spurting through the bumps.



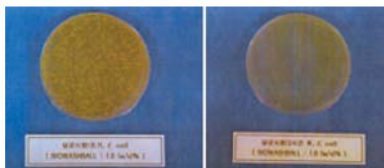
## II. Interfacial activation by far infrared ceramic balls

Water generally comprises 12~15 water clusters, while far infra-red ceramics decrease water clusters to 5~6. The water with small clusters performs interfacial activation, strengthening surface tension. This makes water easily penetrate deep inside clothes or fabrics to remove dirt.



## III. Activation of water by alkaline ceramic balls

Synthetic detergents remove dirt off clothes by alkalizing water to about pH10 and the alkaline ceramics of 1THEWASHBALL also alkalize water in the washing tub to about the level done by synthetic detergents. Alkalized water easily cleanses protein and greases, two major pollutants of clothes.



<Initial time>

<After 2 hours>

## IV. Anti-bacterial effects by anti-bacterial ceramics and TM Ceramics

Anti-bacterial ceramics generate electrons( $e^-$ ) and holes( $H^+$ ), and holes particularly form highly oxidizing hydroxyl radical( $\cdot OH$ ) to have anti-bacterial properties. To TM ceramics is added  $TiO_2$ , which, upon exposure to infrared rays of 380nm, causes photo-catalysis, and generates the two kinds of active oxygen types of superoxide radical( $O_2^-$ ) and hydroxyl( $\cdot OH$ ).

# Well-Tech Award 2009 - sustainability



## Who are Well-Tech?

Well-Tech is an organisation founded in 1999 that is involved in the design and research of new technologies that are both sustainable and accessible. Well-Tech's observatory is constantly scouring the market and the world of research to uncover new products, technologies and materials. The goal is to use its own activities to stimulate the research and development of innovative and sustainable systems and technologies and to promote their transfer to the Italian industrial system.

## Effects of product



### Excellent washing power

Specially manufactured 4 types of ceramic balls turn the water in the washing tub into alkaline and split up water molecules, causing the water to do interfacial activation. This weakens surface tension to allow water to penetrate deep inside fabrics and loosens adhesiveness in fabrics or between dirt, helping protein and grease easily come off fabrics.



### Protecting skins and clothes

When we use synthetic detergents to do washing, they partially remain in the clothes. Those matters cause skin disorders like atopy and shorten the durability of fabrics. 1THEWASHBALL completely removes remaining detergents off clothes and protects against skin diseases. The resulting low acidity renders fabric texture tender, delays oxidation and degeneration and protects clothes to allow them to be used for a longer time.



### Cost-Effectiveness by saving expenses for detergents

Statistics show synthetic detergents a person uses every year amount to 10kg. This is equivalent to 40 kg a year for a family of four, and 120kg of synthetic detergents every three years, meaning a considerable amount of money is used for buying them. 1THEWASHBALL can be used for at least 3 years, therefore families can save as much as may have been spent for buying them.



### Protecting environment

Environmental impacts by synthetic detergents are increasingly becoming severer. They hardly dissolve and block light penetration into water to deter photosynthesis of plants and supply of oxygen, significantly lowering the self-purification of waters. The synthetic detergents used not only cause environmental pollution but also return to us in the form of foods, injuring the health of our family members. 1THEWASHBALL does not need such detergents and its outer cases are also made of eco-friendly materials, contributing to environmental protection.



### Anti-bacterial effects

As the washing tub of a washing machine is often exposed to water, it provides good conditions in which mold or bacteria can propagate. Still remaining in the clothes even after washing, they can cause secondary pollutions. 1THEWASHBALL's ceramic balls are excellent in decomposing even the bacterial remains, blocking the propagation of bacteria in clothes and the washing tub.



### Energy saving

Washing clothes by using synthetic detergents needs plenty of water and electric power to clean off bubbles. 1THEWASHBALL helps significantly lower the amount of water used for washing and the time for rinsing, considerably contributing to saving water and energy. them.



# THE<sup>®</sup> WASHBALL

<http://www.washingball.com>

